

INTERNATIONAL SEARCH REPORT

International Application No
PCT/DK2004/000492

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K16/12 C07K16/46 C12N15/13 C12N15/62 C12N5/10
G01N33/569 G01N33/577 A61K39/395 A61K39/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, CHEM ABS Data, WPI Data, PAJ, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	J. SAMPSON ET AL.: "Immunologic characterization of a monoclonal antibody to Streptococcus pneumoniae pneumococcal surface adhesin A (PsaA) protein." ABSTRACTS OF THE GENERAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, vol. 99, 1999, page 273, XP008027694 USA * abstract E-8 *	1-5, 8, 9, 12-19, 21-24, 39-42
Y	----- -/--	6, 7, 25-31

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

30 November 2004

Date of mailing of the international search report

06/12/2004

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	H. RUSSELL ET AL.: "Monoclonal antibody recognizing a species-specific protein from Streptococcus pneumoniae." JOURNAL OF CLINICAL MICROBIOLOGY, vol. 28, no. 10, October 1990 (1990-10), pages 2191-2195, XP002109328 Washington, DC, USA abstract	1-5, 12-19, 21-24, 36-38
X	N. SRIVASTAVA ET AL.: "Selection of an immunogenic and protective epitope of the PsaA protein of Streptococcus pneumoniae using a phage display library." HYBRIDOMA, vol. 19, no. 1, February 2000 (2000-02), pages 23-31, XP001064205 New York, NY, USA abstract	1-5, 10-19, 21-24, 36-42
X	T. PILISHVILI ET AL.: "Neutralization of attachment of Streptococcus pneumoniae to human epithelial cells by recombinant PsaA and anti-PsaA antibodies." ABSTRACTS OF THE GENERAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, vol. 101, 2001, page 346, XP008027692 USA * abstract E-80 *	1-5, 12-16, 18,19, 21-23, 28,29,40
Y	W. VAN DER POL ET AL.: "Pneumococcal capsular polysaccharide-specific IgA triggers efficient neutrophil effector functions via FcαRI (CD89)." JOURNAL OF INFECTIOUS DISEASES, vol. 182, no. 4, October 2000 (2000-10), pages 1139-1145, XP008027685 Chicago, IL, USA abstract page 1140, left-hand column, line 3 - line 17 figure 4	6,7, 25-31
X	WO 02/092017 A (L. PIROFSKY ET AL.) 21 November 2002 (2002-11-21) page 21 - page 22 claims	8,9, 12-16, 18,19, 21-24
A	WO 02/079254 A (E. JANOFF & C. FASCHING) 10 October 2002 (2002-10-10) claims	8,39,41, 42
A	US 5 686 070 A (DOERSCHUK ET AL.) 11 November 1997 (1997-11-11) examples	1-4,18, 39,41,42

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 37 (partially, for reasons of industrial applicability)
because they relate to subject matter not required to be searched by this Authority, namely:
Although claim 37 is directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 02092017	A	21-11-2002	CA	2447114 A1	21-11-2002
			EP	1463522 A1	06-10-2004
			WO	02092017 A2	21-11-2002
WO 02079254	A	10-10-2002	WO	02079254 A1	10-10-2002
			US	2004198960 A1	07-10-2004
US 5686070	A	11-11-1997	CA	2181787 A1	08-09-1995
			EP	0749488 A1	27-12-1996
			JP	9509837 T	07-10-1997
			WO	9523865 A1	08-09-1995
			US	5707622 A	13-01-1998
			US	5702946 A	30-12-1997
			US	5677426 A	14-10-1997
			US	5874080 A	23-02-1999